

Arts Integrated Lesson Seed



ART FORM:
Dance



SUBJECT AREA:
Mathematics

Lesson Title:

The “electric” coordinate grid, 2

Grade:

6

Contributor, School:

Jennifer Garton, Berlin Middle School

Time Frame:

Two 60-minute lessons

State Curriculum Content Standards, Indicators, Objectives

Dance Content Standard(s)

1.0 Perceiving, Performing, and Responding:
Aesthetic Education: Students will demonstrate the ability to perceive, perform, and respond to dance.
4.0 Aesthetics and Criticism: Students will demonstrate the ability to make aesthetic judgments in dance.

Mathematics Content Standard(s)

1.0 Knowledge of Algebra, Patterns, and Functions
Students will algebraically represent, model, analyze, or solve mathematical or real-world problems involving patterns or functional relationships.
Topic C: Numeric and Graphic Representations of Relationships

7.0 Processes of Mathematics
Students demonstrate the processes of mathematics by making connections and applying reasoning to solve problems and to communicate their findings.
Topic D: Connections

Dance Content Indicator(s)

1.2 Demonstrate kinesthetic awareness and technical proficiency in dance performance.
4.1 Identify, analyze, and apply criteria to evaluate choreography and performance.

Mathematics Content Indicator(s)

1.C.1 Locate points on a number line and in a coordinate plane
1.C.2 Analyze linear relationships.
7.D.1 Relate or apply mathematics within the discipline, to other disciplines, and to life.

Dance Content Objective(s)

1.2.d Reproduce memorized dances accurately.
4.1.b Select and use criteria to critique personal performances, improvised and choreographed, and the performances of others.

Mathematics Content Objective(s)

1.C.1.b Graph ordered pairs in a coordinate plane.
1.C.2.a Identify and describe the change represented in a graph.
7.D.1.b Identify mathematical concepts in relationship to other disciplines.
7.D.1.c Identify mathematical concepts in relationship to life.

Objective(s) (Connecting the content areas)

Students will learn and perform the line dance that goes with the song “The Electric Slide” on an enlarged four-

quadrant coordinate grid. They will match whole number intervals and track positions on the grid, thereby identifying mathematical concepts using dance. Students will select and apply criteria to critique the performances.

Description of Lesson/Activities

Day 1

- Students will review the four-quadrants of the coordinate plane. They will review how to locate points on the plane and how to correctly identify the ordered pair that names the point. The students will also begin to learn a dance to the song "The Electric Slide."

Day 2

- Mastery of the song "The Electric Slide" should be achieved. Students will move to the life-size grid. Each student will begin on the x-axis and will practice adjusting the movements in the dance to the whole numbered intervals on the grid. Once achieved, students will pair the dance, song, and grid system so that each student has an opportunity to read the grid accurately, stopping at regular intervals. As each student achieves success, she/he will relocate to a new position on the grid, thus having to reorient and read a new ordered pair.

Assessment Strategies

Formative Assessment: Each student's ability to move to the correct places on the grid during the song will determine if she/he has mastered the dance steps. Through self-monitoring and teacher direction, immediate adjustments will be made during the class activity. Each student's ability to correctly name the ordered pair where she/he is standing will also be monitored immediately during this activity, through teacher observation.

Summative Assessment: The mathematics objective will be assessed through written assessment. The following self-check will be placed on the written assessment:

- This activity helped me learn how points are located on the coordinate grid.
Definitely Somewhat I'm still lost!
- This activity helped me learn how to read ordered pairs correctly.
Definitely Somewhat I'm still lost!